

REMARKS

Prior to this communication, claims 1 – 5, 7 – 19, and 21 – 28 were pending. The pending Action indicated claims 1 – 5, 7 – 19, and 21 – 28 were rejected. In response, Applicant has amended claims 1, 2, 4, 9, 12, 13, 15, 19, 21, 22, 24, and 28, thereby leaving claims 3, 5, 7, 8, 10, 11, 14, 16 – 18, 23, and 25 – 27 unchanged. Examination and reconsideration in view of the following amendment and remarks are respectfully requested.

103(a) Rejections

Claims 1, and 4 – 10 stand rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent Application Publication Number 2002/0167444 (“Lee”) in view of U.S. Patent Number 2004/0267457 (“Dupray”).

Amended claim 1 recites a method of locating an immobile target fixedly positioned at a location via a mobile base that includes:

- transmitting a first wireless signal from the mobile base at a first time;
- receiving the first wireless signal at the immobile target fixedly position at the location;
- transmitting a second wireless signal from the immobile target in response to receiving the first wireless signal;
- receiving the second wireless signal at the mobile base at a second time;
- determining a time difference between the first time and the second time;
- determining an angle of arrival of the second wireless signal; and
- locating the immobile target based on the angle of arrival and the time difference.

Lee discloses a position estimating method that includes estimating an angle of arrival of a signal from a mobile terminal at a fixed, immobile base station (e.g., base stations 502) serving a fixed geographical area through which mobile terminals (e.g., cell phones 501) pass. Thus, Lee only discloses an immobile station that estimates a position of mobile terminals. Particularly, Lee does not teach or suggest, among other things, “receiving the first wireless signal at the immobile target fixedly position at the location,” and “locating the immobile target based on the angle of arrival and the time difference,” as recited in claim 1.

Dupray discloses a location system that outputs requested locations of **mobile** stations such as cell phones. Specifically, Dupray discloses “a system and method for locating a wireless mobile station using a plurality of mobile station location estimators.” (Paragraph [0002]) Mobile targets are not fixedly positioned at any locations, hence being mobile. Dupray thus makes no mention of mobile stations being immobile. Therefore, Dupray does not overcome the deficiency of Lee with respect to the “immobile target fixedly positioned at the location” limitation of claim 1.

Accordingly, neither Lee nor Dupray, either alone or in combination, teaches or suggests claim 1. Applicant requests withdrawal of the rejection of claim 1. Claims 4, 5, and 7 – 10 depend from claim 1, and therefore, are allowable for at least the reasons set forth above.

Claims 2 and 3 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Dupray and U.S. Patent Number 6,167,240 (“Carlsson”). These claims depend from claim 1, and are patentable for the reasons set forth above.

Carlsson is primarily focused on improving how signals are processed within a standard, traditional cell phone environment with a fixed geographical area through which mobile units (e.g., automobiles) pass. Carlsson makes no mention of moving the base stations to locate immobile targets. As such, Carlsson does not teach or suggest a “method of locating an **immobile target fixedly positioned at a location** via a mobile base,” as recited in claim 1. (Emphasis added.) Therefore, Carlsson does not overcome the deficiencies of Lee and Dupray with respect to the “**immobile target fixedly positioned at the location**” limitation of claim 1.

Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Dupray and U.S. Patent Number 6,934,546 (“Corbett”). This claim depends from claim 1, and is patentable for the reasons set forth above.

Corbett discloses radio-communication systems that can improve soft handoff capabilities. Particularly, the radio-communication systems include “mobile stations M1-M10 [that] communicate with the fixed part of a public switched telephone network (PSTN) by transmitting radio signals to, and receiving radio signals from, cellular base stations B1-

B10.” (Col. 1, lines 12 – 15.) As noted, a cell is a geographical area of radio coverage reached by a cellular base station such as the cellular base stations 400, 410 in FIGS. 1 – 4, and 9 of Corbett. Therefore, Corbett does not overcome the deficiency of Lee and Dupray with respect to the “**immobile target fixedly positioned at the location**” limitation of claim 1.

Claims 12 and 15 – 20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Dupray and U.S. Patent Number 6,025,799 (“Ho”).

Amended claim 12 recites a “method of locating an **immobile target fixedly positioned at a location** from a mobile base,” the method including “omni-directionally transmitting the activating signal from the omni-directional means at a first time while moving the mobile base.” (Emphasis added.) As noted above with respect to claim 1, neither Lee nor Dupray teaches “method of locating an **immobile target fixedly positioned at the location** from a mobile base,” as recited in claim 12. (Emphasis added.)

Ho does not cure the deficiency of Lee and Dupray. Rather, Ho discloses, with reference to FIG. 1, “a roadway with vehicular traffic travelling from lower left to upper right over two lanes between gantry uprights 12L and 12R. At each is an antenna array, 14L, 14R respectively.” The gantry uprights appear to be immobile, and Ho makes no suggestion or provides motivation to make them mobile. The vehicle being located is traveling or mobile. Therefore, claim 12 and dependent claims 15 – 20 are allowable for at least the reasons set forth above.

Claims 12, 13, and 21 – 28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Dupray, Ho and Carlsson.

As noted above with respect to claim 12, neither Lee, Dupray, nor Ho, either alone or in combination, teaches or suggests, all limitations of claim 12. Particularly, neither Lee, Dupray, nor Ho teaches or suggests “an immobile target fixedly positioned at the location” as recited in claim 12. Also as noted above with respect to claim 1, Carlsson does not teach or suggest an immobile target either. As such, Carlsson does not cure the deficiency of Lee, Dupray, and Ho. Claim 12 is patentable over Lee, Dupray, Ho, and Carlsson. Claim 13 depends from claim 12, and therefore, is allowable.

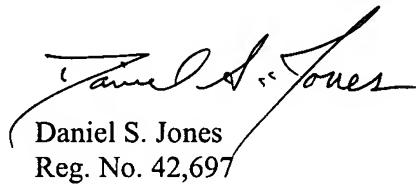
Amended claim 21 recites, among other things, a “method of locating a selected one of a plurality of **immobile targets fixedly positioned at respective locations** from a mobile base.” (Emphasis added.)

As noted above with respect to claim 12, neither Lee, Dupray, Ho, nor Carlsson, either alone or in combination, teaches or suggests, “immobile targets at their respective fixed locations” as recited in amended claim 21. As such, claim 21 is patentable over Lee, Dupray, Ho, and Carlsson. Claims 22 – 28, which depend from claim 21, and therefore, are allowable.

CONCLUSION

In view of the above amendments and remarks, the Applicant respectfully requests entry of this Amendment and allowance of claims 1 – 5, 7 – 19, and 21 – 28. The undersigned is available for telephone consultation during normal business hours. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



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